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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/805,582

03/14/2001

Naoto Kinjo

049390-5008

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06/17/2004

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EXAMINER

YODER III, CHRISS S

ART UNIT

PAPER NUMBER

2612

8

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/805,582

Applicant(s)

KINJO, NAOTO

Examiner

Chriss S. Yoder, III

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-13 and 15-23 is/are rejected.
- 7) ☒ Claim(s) 6, 7 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Digital camera and method for compositing images".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4 and 8-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Dotsubo et al (US Patent # 6,556,243).
2. In regard to claim 1, note Dotsubo discloses the use of a digital camera (column 3, lines 60-62; and figure 1: 10) comprising an image pickup unit for imaging a subject to obtain digital image data (column 3, lines 63-64; and figure 1: 14), an image storing unit for storing at least said digital image data of a photographed image that is obtained with said image pick up unit (column 5, line 50 ; and figure 1: 46), an image display unit for displaying at least an image being presently photographed (column 4, lines 60-65; and figure 1: 34), a reference image designating unit with which one or more of at least

partial areas of an image to be referenced for image compositing are designated as a reference image area (column 6, lines 41-65; and figures 5-6; figures 5a and 6a are considered to be reference images), and an image compositing unit which produces a composite image such that a reference image within said reference image area is displayed on said image display unit as superposed on the image being presently photographed (column 6, lines 41-65; and figures 5-6; figures 5c and 6c are considered to be composited images).

3. In regard to claim 2, note Dotsubo discloses that the image data for said image to be referenced for image compositing is data for either the photographed image or a specified image to be quoted (column 6, lines 41-65; the image can be a photo or a template).

4. In regard to claim 3, note Dotsubo discloses that said reference image area is displayed in a designated position on said image display unit (column 11, lines 20-26; and figure 5A; the reference image is displayed on LCD 34).

5. In regard to claim 4, note Dotsubo discloses that said reference image is processed by binarization (column 8, lines 53-58; and figure 8: S S29-S31, the reference image is binarized).

6. In regard to claim 8, note Dotsubo discloses that said reference image designating unit performs designation of said reference image area by designating one or more of at least partial areas of said image to be referenced for image compositing that is displayed on said image display unit (column 11, lines 20-45; buttons, + or – are used to designate reference images, and the image is displayed on the LCD 34).

7. In regard to claim 9, note Dotsubo discloses that said image storing unit further stores the image data for said image to be referenced for image compositing (column 11, lines 20-25).

8. Claims 11-13 and 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Searby et al (US Patent # 5,459,529).

9. In regard to claim 11, note Searby discloses the use of an image processing method, comprising steps of photographing a subject to acquire digital image data (column 2, lines 23-41) and assembling it with image data for a specified image to be referenced for image compositing to prepare image data for a composite image (column 2, lines 33-41), further comprising the steps of upon photographing, attaching to one or more of at least partial areas of said specified image to be referenced for image compositing first identification information indicating that said one or more of at least partial areas are a reference image to be composited, and designated area information (column 2, lines 33-41), and attaching to an image in a shooting frame which is to be composited with said reference image second identification information indicating that said image in the shooting frame is to be composited (column 2, lines 44-50), as well as upon image outputting, preparing image data for a composite image obtained by compositing said image in the shooting frame with said reference image based on said first and second identification information as well as said designated area information (column 2, lines 44-54).

10. In regard to claim 12, note Searby discloses said attaching step upon photographing further attaches processing information which refers light transmittance

information upon compositing which represents a specified light transmittance for use in image compositing (column 18, lines 2-6) and said image data for the composite image is prepared based on said first and second identification information, said designated area information and said processing information or light transmittance information upon compositing (column 2, lines 23-41; and column 18, lines 2-6, as well as the abstract, lines 19-24).

11. In regard to claim 13, note Searby discloses that information about order of image compositing is used to prepare said image data for the composite image (column 8, line 66 – column 9, line 3; in order to adjust the frame output, the order of images is varied).

12. In regard to claim 19, note Searby discloses that the reference image or said image to be composited with the reference image is a motion image (column 8, lines 6-20).

13. In regard to claim 20, note Searby discloses an image processing method, comprising steps of photographing a subject to acquire digital image data (column 2, lines 23-41) and assembling it with image data for a specified image to be referenced for image compositing to prepare image data for a composite image (column 2, lines 33-41), further comprising the steps of upon photographing, preparing editing information including information about a name or a frame number of an image in a frame to be quoted as a reference image to be composited that is within said specified image to be referenced for image compositing (column 4, lines 44-54; the addressing means stores the images in proper addresses and the images are combined based on the assigned

address), designated area information representing one or more of at least partial areas of said image in the frame to be quoted (column 2, lines 43-49), and information about a name or a frame number of an image in a shooting frame to be composited with said reference image (column 4, lines 44-54; the addressing means stores the images in proper addresses and the images are combined based on the assigned address), and upon image outputting, preparing image data for a composite image obtained by compositing said image in the shooting frame with said reference image based on said editing information (column 4, lines 40-54).

14. In regard to claim 21, note Searby discloses that the editing information further includes processing information which shows what processing step is to be performed to a designated area by said designated area information (column 2, lines 49-51; and the abstract, lines 19-24 ; the processing information shows the shape data to the user to be overlapped with the photographed image in order for the user to select the image placement).

15. In regard to claim 22, note Searby discloses that said editing information further includes information about order of image compositing for use in image compositing (column 8, line 66 – column 9, line 3; in order to adjust the frame output, the order of images is varied).

16. In regard to claim 23, note Searby discloses an image processing method, comprising steps of photographing a subject to acquire digital image data (column 2, lines 23-41), and assembling it with image data for a specified image to be referenced for image compositing to prepare image data for a composite image (column 2, lines 33-

41), further comprising the steps of upon photographing, designating at least one reference image within a specified image to be referenced for image compositing with at least one of a plurality of cameras and attaching reference image designation data to the reference image (column 2, lines 41-49; the first and second images are selected to be composited), sending and receiving image data for said at least one reference image designated among said plurality of cameras (figure 1: 20, 21, and 26), attaching to photographed images respectively photographed with said plurality of cameras which are to be composited with the reference image group identification information indicating that the photographed images belong to a unique group (column 2, lines 44-54; the images are stored with the information of which image is to be used as the background and which is to be used as the foreground as well as the reference image designating area), and on image outputting, compositing the photographed images respectively photographed with said plurality of cameras with said at least one reference image by using the photographed images respectively photographed with said plurality of cameras, said reference image designation data and said group identification information (column 2, lines 44-54; the images are composited).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dotsubo et al (US Patent # 6,556,243) in view of Simons et al (US Patent # 5,917,549).

18. In regard to claim 5, note Dotsubo discloses the use of a digital camera that creates composited images as described in claim 1. Therefore, it can be seen that the Dotsubo device lacks the use of a reference image being displayed on said image display unit is automatically enlarged or reduced in accordance with a magnification of an image being presently photographed. Simons discloses the automatic enlargement or reduction of the reference image in accordance with a magnification of the current image (column 2, lines 5-9). Simons teaches that the automatic enlargement or reduction of the reference image is preferred in order to obtain a distortion-free composite image (column 2, lines 33-34). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Dotsubo device to include the use of automatic enlargement or reduction of the reference image as suggested by Simons.

19. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dotsubo et al (US Patent # 6,556,243) in view of Katayama et al (US Patent # 5,982,951).

20. In regard to claim 10, note Dotsubo discloses the use of a digital camera that creates composited images as described in claim 1. Therefore, it can be seen that the Dotsubo device lacks the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a principal subject in said image being presently photographed are equal to each other in density and color tint. Katayama discloses the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a

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principal subject in said image being presently photographed are equal to each other in density and color tint (column 4, lines 40-47). Katayama teaches that the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a principal subject in said image being presently photographed are equal to each other in density and color tint is preferred in order to blend the images and make it look as if it is only one image (column 1, lines 49-54). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Dotsubo device to include the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a principal subject in said image being presently photographed are equal to each other in density and color tint as suggested by Katayama.

21. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Searby et al (US Patent # 5,459,529) in view of Muramoto et al (US Patent # 6,507,359).

22. In regard to claim 15, note Searby discloses the use of a digital camera that creates composited images as described in claim 11. Therefore, it can be seen that the Searby device lacks the use of a stereophotographic mode, wherein, if said stereophotographic mode is set, image data for a stereoscopic image is prepared after any positional or angular offset between image areas in which a focal distance is at infinity on frames which are to be used in the stereophotographic mode is optionally corrected. Muramoto discloses a camera that has a stereophotographic mode that corrects any positional or angular offset between image areas in which a focal distance is at infinity (column 8, lines 5-15; the images are aligned based on the shaft 205 and

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actuators 206-207, aligning the images so that they are focused on the same point at infinity). Muramoto teaches that the correction of any positional or angular offset between images is preferred in because the user cannot check by himself whether the image correctly reflect the photographic purpose, in order to output an image that can be correctly displayed (column 2, lines 20-27). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Searby device to include the correction of positional or angular offset between image areas in which a focal distance is at infinity as suggested by Muramoto.

23. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Searby et al (US Patent # 5,459,529) in view of Ejima et al (US Patent # 6,259,469).

24. In regard to claim 16, note Searby discloses the use of a digital camera that creates composited images as described in claim 11, as well as producing a composite print and recorded on an image data recording medium (column 8, lines 60-65).

Therefore, it can be seen that the Searby device lacks the use of delivering the image through a telecommunication network. Ejima discloses the use of a telecommunication network that is used to transmit images from one camera to another (column 15, lines 15-21). The use of telecommunications lines such as a telephone system to transmit images is commonly know in the art due to the reliability of the telephone system for a dedicated line between multiple devices. Therefore, it would have been obvious to one of ordinary skill in the art to modify the Searby device to include the delivery of images through a telecommunication network.

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25. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Searby et al (US Patent # 5,459,529) in view of Katayama et al (US Patent # 5,982,951).

26. In regard to claim 17, note Searby discloses the use of a digital camera that creates composited images as described in claim 11. Therefore, it can be seen that the Searby device lacks the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a principal subject in said image being presently photographed are equal to each other in density and color tint. Katayama discloses the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a principal subject in said image being presently photographed are equal to each other in density and color tint (column 4, lines 40-47). Katayama teaches that the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a principal subject in said image being presently photographed are equal to each other in density and color tint is preferred in order to blend the images and make it look as if it is only one image (column 1, lines 49-54). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Searby device to include the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a principal subject in said image being presently photographed are equal to each other in density and color tint as suggested by Katayama.

27. In regard to claim 18, note Searby discloses the use of a digital camera that creates composited images as described in claim 11. Therefore, it can be seen that the Searby device lacks the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a principal subject in said image being presently photographed are equal to each other in density and color tint. Katayama discloses the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a principal subject in said image being presently photographed are equal to each other in density and color tint (column 4, lines 40-47). Katayama teaches that the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a principal subject in said image being presently photographed are equal to each other in density and color tint is preferred in order to blend the images and make it look as if it is only one image (column 1, lines 49-54). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Searby device to include the use of a camera control unit for performing control upon photographing such that a principal subject in said reference image and a principal subject in said image being presently photographed are equal to each other in density and color tint as suggested by Katayama.

Allowable Subject Matter

28. Claims 6-7 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

29. As for claim 6, the prior art does not teach or fairly suggest the use of a camera that that creates a composite image by clipping out the reference area of the image automatically when the subject in the image is focused.

30. As for claim 7, the prior art does not teach or fairly suggest the use of a camera that that creates a composite image, and that when set to stereophotographic mode the area of the image that has a focal distance set to infinity, is clipped out the reference image automatically and set to the reference image area.

31. As for claim 14, the prior art does not teach or fairly suggest the use of a camera that that creates a composite image by clipping out the reference area of the image automatically when the subject in the image is focused.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US005185808A: note the use of two images being merged.

US006621932B2: note the use of two images being merged.

US006476874B1: note the use of two images being merged.

US006393162B1: note the use of two images being merged.

US005107252A: note the use of two images being merged.

US005914748A: note the use of two images being merged.

US006636233B1: note the use of two images being merged.

US006211913B1: note the use of two images being merged.

US006507665B1: note the use of stereo images.

US004297724: note the use of two images being merged.

US004602286: note the use of two images being merged.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chriss S. Yoder, III whose telephone number is (703) 305-0344. The examiner can normally be reached on M-F: 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CSY
June 9, 2004



NGOC-YEN VU
PRIMARY EXAMINER